

REMARKS

The present application has been reviewed in light of the Office Action dated October 7, 2008. Claims 1-4 and 6-16 are presented for examination, of which Claims 1, 2, and 10-15 are in independent form. Claim 5 has been cancelled, without prejudice or disclaimer of the subject matter presented therein, and new Claim 16 has been added to provide Applicants with a more complete scope of protection. Claims 1-4, 6-8, and 11-15 have been amended to define aspects of Applicants' invention more clearly. Favorable reconsideration is respectfully requested.

The Examiner is respectfully requested to return initialed copies of the PTO-1449 forms submitted with the Information Disclosure Statements filed on March 5, 2008, and September 30, 2008.

The Office Action states that Claims 1-3, 6-9, 11-13, and 15 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2004/0102192 (*Serceki*); that claims 10 and 14 are rejected under 35 U.S.C. § 102(a) as being anticipated by a document entitled, "The Windows XP Wireless Zero Configuration Service" (*Zero*); that Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Serceki* in view of U.S. Patent No. 6,529,522 (*Ito et al.*); and that Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Serceki*. Cancellation of Claim 5 renders its rejection moot. For at least the following reasons, Applicants submit that independent Claims 1, 2, and 10-15, together with the claims dependent therefrom, are patentably distinct from the cited prior art.

The aspect of the present invention set forth in Claim 1 is directed to a wireless communication system having first and second wireless communication devices. The first wireless communication device includes: (1) a detection unit adapted to detect a plurality of

beacons at a plurality of frequencies; (2) a first transmission unit adapted to transmit a search request signal to a wireless device that is present on a network identified by network identification information included in a beacon detected by the detection unit so as to search for a wireless communication device having a predetermined data processing function; (3) a determination unit adapted to determine a wireless communication device having the predetermined data processing function on the basis of a response signal that the determined wireless communication device has transmitted in response to the search request signal transmitted by the first transmission unit; (4) a display unit adapted to selectably display information associated with the wireless communication device determined by the determination unit so as to determine a wireless communication partner; and (5) a control unit adapted to, when a user selects the information displayed by the display unit while the detection unit detects the beacon, terminate the detection process of the detection unit and execute connection processing with a wireless communication device specified by the selected information. The second wireless communication device includes a second transmission unit adapted to transmit a signal including self identification information as the response signal, when search request information is detected in a wireless reception waiting state at a predetermined frequency.

Notable features of Claim 1 are that the first transmission unit transmits a search request signal to a wireless device that is present on a network identified by network identification information included in a beacon detected by the detection unit so as to search for a wireless communication device having a predetermined data processing function; that the determination unit determines a wireless communication device having the predetermined data processing function on the basis of a response signal that the determined wireless communication device has transmitted in response to the search request signal transmitted by the first

transmission unit; and that, when a user selects the information displayed by the display unit while the detection unit detects the beacon, the control unit, terminates the detection process of the detection unit and execute connection processing with a wireless communication device specified by the selected information. By virtue of these features, a user of the first wireless communication device is able to search for a partner wireless communication device having a predetermined data processing function, such a printing function, for example.¹

Serceki relates to a software tool running on a computer with wireless communication capabilities that detects a presence of wireless networks and displays related information on the computer. Apparently, *Serceki* teaches that a Graphical User Interface (GUI) 126 includes a graphical representation 128 of communication activity on various channels of 802.11b networks and a connection information status area 145 displaying various channels identified in the graphical representation 128 (see paragraph 26). The graphical representation 128 includes channel numbers and an indication of a level of communication activity for each channel, which may include a signal quality or a channel utilization, for example (see paragraph 26). *Serceki* discusses that a beacon signal preferably includes a Media Access Control (MAC) address of an Access Point (AP) and an identifier of the network with which the AP is a member (see paragraph 28). *Serceki* also discusses that passive scanning may be employed, wherein a radio module 116 is tuned to each channel frequency and waits for a predetermined period of time until it detects a beacon signal from an AP (see paragraph 28). In addition, *Serceki* discusses that active scanning may be employed, wherein a probe request in accordance with the 802.11 standard is transmitted on each channel frequency and, if no probe response is received within a predetermined period of time, it is determined that no access point is available on that

¹ The example(s) presented herein are intended for illustrative purposes only. Any details presented in the illustrative example(s) should not be construed to limit the scope of the claims.

channel (see paragraph 32). As best understood by Applicants, the software tool disclosed by *Serceki* does not transmit a search request to a device identified in response to a detected beacon signal.

Nothing has been found in *Serceki* that is believed to teach or suggest a wireless communication device that includes a “first transmission unit adapted to transmit a search request signal to a wireless device that is present on a network identified by network identification information included in a beacon detected by said detection unit so as to search for a wireless communication device having a predetermined data processing function,” a “determination unit adapted to determine a wireless communication device having the predetermined data processing function on the basis of a response signal that the determined wireless communication device has transmitted in response to the search request signal transmitted by said first transmission unit,” and a “control unit adapted to, when a user selects the information displayed by said display unit while said detection unit detects the beacon, terminate the detection process of said detection unit and execute connection processing with a wireless communication device specified by the selected information,” as recited in Claim 1.

Accordingly, Applicants submit that Claim 1 is not anticipated by *Serceki*, and respectfully request withdrawal of the rejection under 35 U.S.C. § 102(e). Independent Claims 2 and 13 include features similar to those of Claim 1 discussed above. Therefore, Claims 2 and 13 also are believed to be patentable for at least the reasons discussed above.

The aspect of the present invention set forth in Claim 10 is directed to a wireless communication device. The device includes: (1) a storage unit adapted to store device identification information and network identification information of a partner to which the wireless communication device has been connected previously; (2) an instruction unit adapted to

instruct one of a history search mode that communicates with a desired partner wireless communication device based on the information stored in the storage unit, and a new search mode that searches for a new partner wireless communication device via a wireless communication, and communicates with the new partner wireless communication device; (3) a beacon detection unit adapted to, when the instruction unit instructs the new search mode, detect a beacon; (4) a search unit adapted to compare network identification information included in the detected beacon with the network identification information stored in the storage unit, make the detection unit detect another beacon, if there is a match in the compared network identification information, and search for a partner wireless communication device to communicate with based on new network identification information, if the new network identification information is detected; (5) a first display unit adapted to selectably display device identification information of a wireless communication unit found by the search unit; (6) a second display unit adapted to, when the instruction unit instructs the history search mode, selectably display the device identification information of a wireless communication unit stored in the storage unit; and (7) a wireless communication establishment process unit adapted to, when device identification information displayed by one of the first and second display unit is selected, execute a wireless communication establishment process with wireless communication unit specified by the selected device identification information.

Notable features of Claim 10 are that the instruction unit instructs one of a history search mode that communicates with a desired partner wireless communication device based on the information stored in the storage unit, and a new search mode that searches for a new partner wireless communication device via a wireless communication, and communicates with the new partner wireless communication device; and that the search unit compares network identification

information included in the detected beacon with the network identification information stored in the storage unit. If there is a match in the compared network identification information, the search unit makes the detection unit detect another beacon, and searches for a partner wireless communication device to communicate with based on new network identification information. If the network identification information is detected; the search unit searches for a partner wireless communication device to communicate with based on the new network identification information. In addition, the first display unit selectably displays device identification information of a wireless communication unit found by the search unit. That is, the search unit only searches for new partner devices (*i.e.*, partner devices that do not have corresponding identification information stored in the storage unit), and information identifying the new partner devices is displayed by the first display. By virtue of these features, a user of the wireless communication device is able to select from a list that includes only new partner devices that have not previously connected to the wireless communication device, for example.

Zero is directed to a Wireless Zero Configuration Service for a computer running the Windows XP operating system. *Zero* teaches that scanning can be performed to detect wireless networks, that information identifying detected wireless networks can be displayed, and that scanning can be performed again if a user presses a “Refresh” button. *Zero* discusses that a priority wireless network field can be set for each wireless network that has been joined previously, and that attempts to join preferred wireless networks can be performed automatically based on the information included in the priority wireless network fields (see pages 1-2). Apparently, the Wireless Zero Configuration Service causes a most preferred wireless network that is within range to be joined automatically and, if a preferred wireless network is not within range, a user must select a detected wireless network to join it. The “Wireless Network

Connection Properties” window shown on page 2 includes an “Available networks” portion and a “Preferred networks,” both of which include a “CorpNet” wireless network identifier. As best understood by Applicants, the Wireless Zero Configuration Service does not perform the functions of the claimed search unit and first display unit, because the “Available networks” portion includes device identification information of a wireless communication device that has previously connected to computer. That is, there is no display area that lists only information regarding devices to which the computer has not connected previously.

Nothing has been found in *Zero* that is believed to teach or suggest a wireless communication device that includes an “instruction unit adapted to instruct one of a history search mode that communicates with a desired partner wireless communication device based on the information stored in said storage unit, and a new search mode that searches for a new partner wireless communication device via a wireless communication, and communicates with the new partner wireless communication device,” a “search unit adapted to compare network identification information included in the detected beacon with the network identification information stored in said storage unit, make said detection unit detect another beacon, if there is a match in the compared network identification information, and search for a partner wireless communication device to communicate with based on new network identification information, if the new network identification information is detected,” and a “first display unit adapted to selectably display device identification information of a wireless communication unit found by said search unit,” as recited in Claim 10.

Accordingly, Applicants submit that Claim 10 is not anticipated by *Zero*, and respectfully request withdrawal of the rejection under 35 U.S.C. § 102(a). Independent Claim 14

includes features similar to those of Claim 10 discussed above. Therefore, Claim 14 also is believed to be patentable for at least the reasons discussed above.

The aspect of the present invention set forth in Claim 11 is directed to a wireless communication system having first and second wireless communication devices. The first wireless communication device includes: (1) a discrimination unit adapted to discriminate a type of device capable of executing a processing designated by an operator; (2) a determination unit adapted to, when receiving a beacon transmitted by a device on a wireless network, determine whether device identification information corresponding to the type discriminated by the discrimination unit is included in the received beacon; and (3) a display unit adapted to, if the determination unit determines that the device identification information corresponding to the type discriminated by the discrimination unit is included in the received beacon, selectably display information associated with the device that transmitted the beacon. The second wireless communication device includes an informing unit adapted to include device identification information indicating a function into a beacon and transmitting the beacon to the wireless network and, when information of the second wireless communication device among information displayed by the display unit is selected, a process for establishing a communication between the first and second wireless communication devices is executed.

Notable features of Claim 11 are that discrimination unit discriminates a type of device capable of executing a processing designated by an operator; that the determination unit determines whether device identification information corresponding to the type discriminated by the discrimination unit is included in the received beacon, when receiving a beacon transmitted by a device on a wireless network, and that the display unit selectably displays information associated with the device that transmitted the beacon, if the determination unit determines that

the device identification information corresponding to the type discriminated by the discrimination unit is included in the received beacon. By virtue of these features, a user of the first wireless communication device is able to identify a particular type of partner device (*e.g.*, a printer, a camera, a storage, a display, or a facsimile) before a wireless connection is established, and is able to select a partner device for establishing a wireless connection based on the type, for example.

As best understood by Applicants, *Serceki* is silent regarding transmitting a beacon including device identification information indicating a device function. Nothing has been found in *Serceki* that is believed to teach or suggest a wireless communication device that includes a “discrimination unit adapted to discriminate a type of device capable of executing a processing designated by an operator,” a “determination unit adapted to, when receiving a beacon transmitted by a device on a wireless network, determine whether device identification information corresponding to the type discriminated by said discrimination unit is included in the received beacon,” and a “display unit adapted to, if said determination unit determines that the device identification information corresponding to the type discriminated by said discrimination unit is included in the received beacon, selectively display information associated with the device that transmitted the beacon,” as recited in Claim 11.

Accordingly, Applicants submit that Claim 11 is patentable over *Serceki*, and respectfully request withdrawal of the rejection under 35 U.S.C. § 103(a). Independent Claims 12 and 15 include features similar to those of Claim 11 discussed above. Therefore, Claims 12 and 15 also are believed to be patentable over *Serceki* for at least the reasons discussed above.

Ito et al. is directed to a system for causing plural devices corresponding to communication methods of different formats to be recognized as a single communication system.

Apparently, *Ito et al.* teaches that a printer may receive data from a digital camera using Infrared Data Association (IrDa) based communications, that the printer may convert the data to an IEEE 1394 format; and that the printer may transmit the converted data to a computer or scanner. Nothing has been found in *Ito et al.* that is believed to cure the deficiencies of *Serceki* discussed above.

The other claims in this application depend from one or another of the independent claims discussed above and therefore are submitted to be patentable for at least the reasons presented above. Because each dependent claim also is deemed to define an additional aspect of the invention, individual consideration or reconsideration, as the case may be, of the patentability of each claim on its own merits is respectfully requested.

No petition to extend the time for response to the Office Action is deemed necessary for this Amendment. If, however, such a petition is required to make this Amendment timely filed, then this paper should be considered such a petition and the Commissioner is authorized to charge the requisite petition fee to Deposit Account 06-1205.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and an early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

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